

# PATENT ABSTRACTS OF JAPAN

(11) Publication number : 2001-268181

(43) Date of publication of application : 28.09.2001

(51) Int.CI.

H04M 1/00  
H04Q 7/38

(21) Application number : 2000-074204

(71) Applicant : SANYO ELECTRIC CO LTD

(22) Date of filing : 16.03.2000

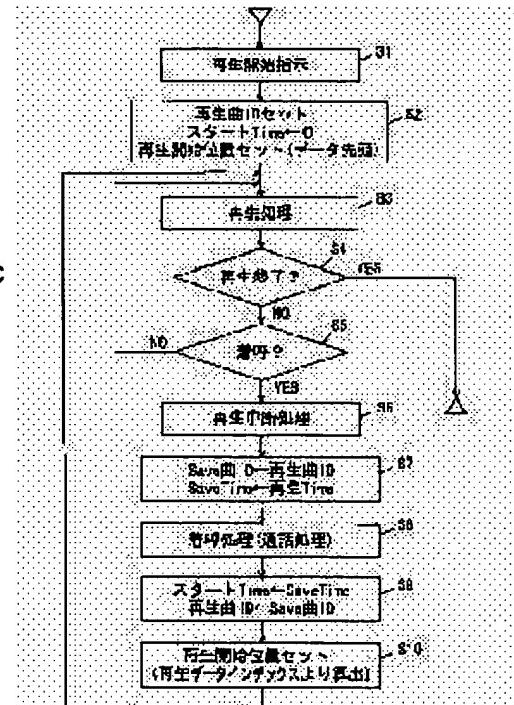
(72) Inventor : KONDO MASUO

## (54) MOBILE PHONE

### (57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a mobile phone with excellent user-friendliness even when an incoming call arrives in the midst of hearing music.

**SOLUTION:** At the arrival of the incoming call during reproduction of music (S5), the reproduction of the music is interrupted (S6), and a speech is started (S8). At the end of the speech, reproduction of the music is started from the interrupted part of the music (S9, S10).



## LEGAL STATUS

[Date of request for examination] 14.07.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's  
decision of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

**\* NOTICES \***

**JPO and NCIPI are not responsible for any  
damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
  2. \*\*\*\* shows the word which can not be translated.
  3. In the drawings, any words are not translated.
- 

**CLAIMS****[Claim(s)]**

[Claim 1] the transceiver means which communicates with a base station, a music playback means reproduce music, and said sound -- the time of arrival of the mail being during easy playback -- said sound -- said music playback means controls and said communication link starts so that easy playback may interrupt -- as -- said transceiver means -- controlling -- the time of termination of said communication link -- said sound -- the portable telephone equipped with the control means which controls said music playback means resuming easy playback from the part which interrupted.

[Claim 2] The portable telephone according to claim 1 further equipped with the interface which the memory which memorized the data of said music can connect.

[Claim 3] The portable telephone according to claim 1 further equipped with the memory for memorizing the data of said music.

[Claim 4] Said memory has memorized the table including the address of the data of said music corresponding to the elapsed time and its elapsed time from the head of said music further. Said control means The means which resets a timer and is started at the time of playback initiation of the music by said music playback means, A means to interrupt playback of said music when arrival of the mail is during playback of said music, A means to save the elapsed time of said timer when playback of said music is interrupted, A means to read musical data for the address corresponding to said saved elapsed time according to read-out and its read address at the time of termination of said communication link, and to resume playback of said music with reference to said table, and the included portable telephone according to claim 2 or 3.

---

[Translation done.]

**\* NOTICES \***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**DETAILED DESCRIPTION**

---

**[Detailed Description of the Invention]****[0001]**

**[Field of the Invention]** This invention relates to amelioration of the portable telephone equipped with the music regenerative function in more detail about a portable telephone.

**[0002]**

**[Description of the Prior Art]** In recent years, a portable telephone is beginning to be used as a terminal connectable with information communication networks, such as the Internet, with development of an information technology. In connection with the compression technology of digital audio data on the other hand, online distribution of music data is possible. The portable telephone equipped with the music regenerative function so that music could be listened to with a portable telephone recently is proposed by making these into a background.

**[0003]**

**[Problem(s) to be Solved by the Invention]** However, when a call in is in the midst it is being heard that music is, it is not yet examined how it processes.

**[0004]** as a simple art -- a sound -- the music which could not but relisten to that music to the beginning by this approach at the time of message termination, and was being listened to at the time of a call in although it was possible to suspend easy playback and to give priority to a message -- on the way -- since -- a rapid traverse etc. is carried out in order to begin to hear it -- it will be thought that it does not become if it kicks.

**[0005]** This invention aims at offering the portable telephone excellent in convenience, even when the midst it is being heard that music is has arrival of the mail.

**[0006]**

**[Means for Solving the Problem]** A portable telephone will be equipped with a transceiver means, a music playback means, and a control means if this invention is followed. A transceiver means communicates with a base station. A music playback means plays music. When arrival of the mail is during musical playback, to interrupt musical playback, a control means controls a music playback means, and controls a transceiver means to start a communication link, and it controls a music playback means to resume musical playback from the interrupted part at the time of communicative termination.

**[0007]** Therefore, if a message is completed, it can be begun to listen to that music from the part which was being heard at the time of arrival of the mail, even if it talks over the telephone with this portable telephone by the midst it is being heard that music is having arrival of the mail.

**[0008]** Preferably, the above-mentioned portable telephone is equipped with the interface which the memory which memorized musical data can connect further. Or the above-mentioned portable telephone is further equipped with the memory for memorizing musical data. Thus, the memory for memorizing musical data may be external storage, or may be internal storage.

**[0009]** The above-mentioned memory has memorized the table further still more preferably. A table includes the address of the data of the music corresponding to the elapsed time and its elapsed time from a musical head. The means which the above-mentioned control means resets a timer at the time of

playback initiation of the music by the music playback means, and is started, a sound -- the time of arrival of the mail being during easy playback -- a sound -- a means to interrupt easy playback, and a sound -- with a means to save the elapsed time of a timer when easy playback is interrupted It contains with a means to read music data for the address corresponding to the elapsed time saved at the time of communicative termination with reference to a table according to read-out and its read address, and to resume musical playback.

[0010] Since the address of the data of the music which should resume playback using a table is specified according to this portable telephone, musical playback can be immediately resumed at the time of communicative termination.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of implementation of this invention is explained in detail with reference to a drawing. In addition, the same sign is given to the same or a considerable part among drawing, and the explanation is not repeated.

[0012] Drawing 1 is the block diagram showing the whole portable telephone configuration by the gestalt of implementation of this invention. The transceiver section 14 in which a portable telephone 10 communicates with a base station through an antenna 12 and an antenna 12 with reference to drawing 1, The music playback section 16 which plays music, and the voice playback section 18 which reproduces voice, The output terminal 20 which a loudspeaker and headphone can connect, and the microphone 21 which detects a user's voice, The interface 24 which can connect a memory card 22, and the display 26 which displays various information, It has the input section 28 which consists of a keyboard and a touch panel, the main control section 30 for controlling actuation of the portable telephone 10 whole, and the bus 32 to which the data and the control signal of portable telephone 10 each part are transmitted.

[0013] In talk mode, a sound signal is transmitted to a base station through an antenna 12 from the transceiver section 14 while being received by the transceiver section 14 through an antenna 12 from a base station. The transceiver section 14 changes into baseband signaling the high frequency signal received with the antenna 12, and modulates a data signal, and gives it to an antenna 12. The received sound signal is given to the voice playback section 18 through a bus 32, and the voice reproduced here is given to a loudspeaker and headphone through an output terminal 20.

[0014] On the other hand, in a music playback mode, music data are read from a memory card 22, and it is given to the music playback section 16. Music is played by the music playback section 16 based on music data, and a loudspeaker and headphone are given through an output terminal 20.

[0015] Here, how to obtain the memory card 22 which memorized music data is explained briefly.

[0016] First, music data connect to an interface 24 the memory card 22 which is not yet recorded. Then, it calls to the provider who operates a touch key, a dialing key, etc. of the input section 28, and offers music distribution service. When a user's authentication etc. is completed, music data are transmitted from a provider and it is stored in a memory card 22 through an antenna 12, the transceiver section 14, and an interface 24. Thus, when encryption and compression processing are performed to the distributed music data, processing of a decryption, defrosting, etc. is performed.

[0017] Although it is possible to make a memory card 22 memorize two or more music data, as shown in drawing 2, the playback data index table is given to each music data. This playback data index table includes the elapsed time from a musical head, and the address of the music data corresponding to that elapsed time. In this example, music data are divided every 0.5 seconds and the start address of each of that divided data is registered beforehand. For example, after 1.5-second progress, music is played based on the music data of the address "300" from musical playback initiation. Although a provider may be made for this playback data index table to be distributed together with music data, you may make it generated by internal data processing based on the distributed music data.

[0018] In the above, although music data are directly downloaded to the memory card 22 through a portable telephone 10, they may be replaced with this, may once be downloaded in a personal computer etc., and may transmit and use it for a memory card 22. Or the memory card 22 on which music data are recorded beforehand may be purchased and used.

[0019] Next, actuation of the portable telephone 10 constituted as mentioned above is explained. If the

touch key of the input section 28 is operated first and a portable telephone 10 is made into a music playback mode, a playback initiation menu as shown in drawing 3 will be displayed on a display 26. In this example, the music names and those playback time amount of three music are displayed. The data of these music name or playback time amount are also memorized by the memory card 22, and the main control section 30 displays a playback initiation menu like a read-out lever on a display 26 for those data.

[0020] Then, in step S1 shown in drawing 4, a user operates the input section 28 and directs reproductive initiation. The cursor 34 which pushes the input section 28 top or a bottom carbon button, and is specifically shown in drawing 3 is moved up and down, and music to play is chosen.

[0021] Then, in step S2, the main control section 30 sets the "playback music ID" of the selected music, resets a timer and sets it to the start address of music data which had the playback starting position chosen further. Here, a software timer is used and "Start Time" is specifically set to 0. The increment of this timer is carried out according to an internal clock.

[0022] Thereby, the main control section 30 reads music data from a memory card 22, and gives them to the music playback section 16. In step S3, the music playback section 16 plays music based on the given music data. The music signal generated in the music playback section 16 is given to a loudspeaker and headphone through an output terminal 20.

[0023] Unless a user operates the input section 28 in step S4, it does not direct reproductive termination or a call in is detected in step S5, regeneration of step S3 is continued.

[0024] When a call in occurs during musical playback, in step S6, the main control section 30 controls the music playback section 16 to interrupt musical playback.

[0025] Then, in step S7, the main control section 30 saves the "playback music ID" set at step S2. Specifically, "the playback music ID" is set to "the Save music ID." It can come, simultaneously the elapsed time of a timer is also saved. Specifically, "Playback Time" is set to "SaveTime."

[0026] Then, in step S8, the main control section 30 controls the transceiver section 14 to start a message. Thereby, the transceiver section 14 processes a call in and starts message processing.

[0027] If a user finishes a message, operates the input section 28 and directs termination of message processing, the main control section 30 will set to "Start Time" the elapsed time "SaveTime" saved at step S7 in step S9. It can come, simultaneously the main control section 30 sets to "the playback music ID" the "Save music ID" saved at step S7.

[0028] Then, in step S10, the main control section 30 reads music data for the address corresponding to the saved elapsed time according to read-out and its read address with reference to the playback data index table stored in the memory card 22, and resumes musical playback. The music which specifically interrupted playback according to the "playback music ID" set by step S9 is specified, and the playback data index table corresponding to the music data is specified further. And according to the "start Time" set by step S9, the address of music data is specified from a playback data index table, and read-out of music data is resumed from the address of a memory card 22. Thereby, the music playback section 16 starts musical playback from the part which interrupted playback.

[0029] according to the gestalt of this operation as mentioned above -- a sound -- the time of a call in occurring during easy playback -- a sound -- easy playback -- being interrupted -- a message -- starting -- the time of termination of a message -- a sound -- if a message is completed even if it talks over the telephone by a call in being in the midst it is being heard that music is, it can begin to be able to hear it, since it is constituted so that easy playback may resume from that part that interrupted from the part which was listening to that music at the time of a call in Consequently, in order to listen to music to the middle, in case a user does not have to do a rapid traverse etc. and listens to music with a cellular phone, he is very convenient.

[0030] When there is reception of e-mail, musical playback is interrupted and you may make it start download of e-mail, although musical playback is interrupted for the gestalt of the above-mentioned implementation and he is trying to start a message with it, when a call in occurs. Moreover, although external storage like a memory card 22 is used in order to memorize music data and a playback data index table, it may replace with this and an internal memory may be used. Furthermore, although the

software timer is used, as it replaces with this and is shown in drawing 1, the hard timer circuit 34 may be used.

[0031] It should be thought that the gestalt of the operation indicated this time is [ no ] instantiation at points, and restrictive. The range of this invention is shown by the above-mentioned not explanation but claim, and it is meant that all modification in a claim, equal semantics, and within the limits is included.

[0032]

[Effect of the Invention] according to this invention -- a sound -- the time of arrival of the mail being during easy playback -- a sound -- easy playback -- being interrupted -- a communication link -- starting -- the time of communicative termination -- a sound -- since it constitutes so that easy playback may be resumed from that interrupted part, the convenience of the portable telephone which has a music regenerative function improves.

---

[Translation done.]

**\* NOTICES \***

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**TECHNICAL FIELD**

---

[Field of the Invention] This invention relates to amelioration of the portable telephone equipped with the music regenerative function in more detail about a portable telephone.

---

[Translation done.]

**\* NOTICES \***

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**PRIOR ART**

---

[Description of the Prior Art] In recent years, a portable telephone is beginning to be used as a terminal connectable with information communication networks, such as the Internet, with development of an information technology. In connection with the compression technology of digital audio data on the other hand, online distribution of music data is possible. The portable telephone equipped with the music regenerative function so that music could be listened to with a portable telephone recently is proposed by making these into a background.

---

[Translation done.]

**\* NOTICES \***

**JPO and NCIPI are not responsible for any  
damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**EFFECT OF THE INVENTION**

---

[Effect of the Invention] according to this invention -- a sound -- the time of arrival of the mail being during easy playback -- a sound -- easy playback -- being interrupted -- a communication link -- starting -- the time of communicative termination -- a sound -- since it constitutes so that easy playback may be resumed from that interrupted part, the convenience of the portable telephone which has a music regenerative function improves.

---

[Translation done.]

**\* NOTICES \***

**JPO and NCIPI are not responsible for any  
damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**TECHNICAL PROBLEM**

---

[Problem(s) to be Solved by the Invention] However, when a call in is in the midst it is being heard that music is, it is not yet examined how it processes.

[0004] as a simple art -- a sound -- the music which could not but relisten to that music to the beginning by this approach at the time of message termination, and was being listened to at the time of a call in although it was possible to suspend easy playback and to give priority to a message -- on the way -- since -- a rapid traverse etc. is carried out in order to begin to hear it -- it will be thought that it does not become if it kicks.

[0005] This invention aims at offering the portable telephone excellent in convenience, even when the midst it is being heard that music is has arrival of the mail.

---

[Translation done.]

**\* NOTICES \***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

**MEANS**

---

[Means for Solving the Problem] A portable telephone will be equipped with a transceiver means, a music playback means, and a control means if this invention is followed. A transceiver means communicates with a base station. A music playback means plays music. When arrival of the mail is during musical playback, to interrupt musical playback, a control means controls a music playback means, and controls a transceiver means to start a communication link, and it controls a music playback means to resume musical playback from the interrupted part at the time of communicative termination. [0007] Therefore, if a message is completed, it can be begun to listen to that music from the part which was being heard at the time of arrival of the mail, even if it talks over the telephone with this portable telephone by the midst it is being heard that music is having arrival of the mail.

[0008] Preferably, the above-mentioned portable telephone is equipped with the interface which the memory which memorized musical data can connect further. Or the above-mentioned portable telephone is further equipped with the memory for memorizing musical data. Thus, the memory for memorizing musical data may be external storage, or may be internal storage.

[0009] The above-mentioned memory has memorized the table further still more preferably. A table includes the address of the data of the music corresponding to the elapsed time and its elapsed time from a musical head. The means which the above-mentioned control means resets a timer at the time of playback initiation of the music by the music playback means, and is started, a sound -- the time of arrival of the mail being during easy playback -- a sound -- a means to interrupt easy playback, and a sound -- with a means to save the elapsed time of a timer when easy playback is interrupted It contains with a means to read music data for the address corresponding to the elapsed time saved at the time of communicative termination with reference to a table according to read-out and its read address, and to resume musical playback.

[0010] Since the address of the data of the music which should resume playback using a table is specified according to this portable telephone, musical playback can be immediately resumed at the time of communicative termination.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of implementation of this invention is explained in detail with reference to a drawing. In addition, the same sign is given to the same or a considerable part among drawing, and the explanation is not repeated.

[0012] Drawing 1 is the block diagram showing the whole portable telephone configuration by the gestalt of implementation of this invention. The transceiver section 14 in which a portable telephone 10 communicates with a base station through an antenna 12 and an antenna 12 with reference to drawing 1, The music playback section 16 which plays music, and the voice playback section 18 which reproduces voice, The output terminal 20 which a loudspeaker and headphone can connect, and the microphone 21 which detects a user's voice, The interface 24 which can connect a memory card 22, and the display 26 which displays various information, It has the input section 28 which consists of a keyboard and a touch panel, the main control section 30 for controlling actuation of the portable telephone 10 whole, and the bus 32 to which the data and the control signal of portable telephone 10 each part are transmitted.

[0013] In talk mode, a sound signal is transmitted to a base station through an antenna 12 from the transceiver section 14 while being received by the transceiver section 14 through an antenna 12 from a base station. The transceiver section 14 changes into baseband signaling the high frequency signal received with the antenna 12, and modulates a data signal, and gives it to an antenna 12. The received sound signal is given to the voice playback section 18 through a bus 32, and the voice reproduced here is given to a loudspeaker and headphone through an output terminal 20.

[0014] On the other hand, in a music playback mode, music data are read from a memory card 22, and it is given to the music playback section 16. Music is played by the music playback section 16 based on music data, and a loudspeaker and headphone are given through an output terminal 20.

[0015] Here, how to obtain the memory card 22 which memorized music data is explained briefly.

[0016] First, music data connect to an interface 24 the memory card 22 which is not yet recorded. Then, it calls to the provider who operates a touch key, a dialing key, etc. of the input section 28, and offers music distribution service. When a user's authentication etc. is completed, music data are transmitted from a provider and it is stored in a memory card 22 through an antenna 12, the transceiver section 14, and an interface 24. Thus, when encryption and compression processing are performed to the distributed music data, processing of a decryption, defrosting, etc. is performed.

[0017] Although it is possible to make a memory card 22 memorize two or more music data, as shown in drawing 2, the playback data index table is given to each music data. This playback data index table includes the elapsed time from a musical head, and the address of the music data corresponding to that elapsed time. In this example, music data are divided every 0.5 seconds and the start address of each of that divided data is registered beforehand. For example, after 1.5-second progress, music is played based on the music data of the address "300" from musical playback initiation. Although a provider may be made for this playback data index table to be distributed together with music data, you may make it generated by internal data processing based on the distributed music data.

[0018] In the above, although music data are directly downloaded to the memory card 22 through a portable telephone 10, they may be replaced with this, may once be downloaded in a personal computer etc., and may transmit and use it for a memory card 22. Or the memory card 22 on which music data are recorded beforehand may be purchased and used.

[0019] Next, actuation of the portable telephone 10 constituted as mentioned above is explained. If the touch key of the input section 28 is operated first and a portable telephone 10 is made into a music playback mode, a playback initiation menu as shown in drawing 3 will be displayed on a display 26. In this example, the music names and those playback time amount of three music are displayed. The data of these music name or playback time amount are also memorized by the memory card 22, and the main control section 30 displays a playback initiation menu like a read-out lever on a display 26 for those data.

[0020] Then, in step S1 shown in drawing 4, a user operates the input section 28 and directs reproductive initiation. The cursor 34 which pushes the input section 28 top or a bottom carbon button, and is specifically shown in drawing 3 is moved up and down, and music to play is chosen.

[0021] Then, in step S2, the main control section 30 sets the "playback music ID" of the selected music, resets a timer and sets it to the start address of music data which had the playback starting position chosen further. Here, a software timer is used and "Start Time" is specifically set to 0. The increment of this timer is carried out according to an internal clock.

[0022] Thereby, the main control section 30 reads music data from a memory card 22, and gives them to the music playback section 16. In step S3, the music playback section 16 plays music based on the given music data. The music signal generated in the music playback section 16 is given to a loudspeaker and headphone through an output terminal 20.

[0023] Unless a user operates the input section 28 in step S4, it does not direct reproductive termination or a call in is detected in step S5, regeneration of step S3 is continued.

[0024] When a call in occurs during musical playback, in step S6, the main control section 30 controls the music playback section 16 to interrupt musical playback.

[0025] Then, in step S7, the main control section 30 saves the "playback music ID" set at step S2.

Specifically, "the playback music ID" is set to "the Save music ID." It can come, simultaneously the elapsed time of a timer is also saved. Specifically, "Playback Time" is set to "SaveTime."

[0026] Then, in step S8, the main control section 30 controls the transceiver section 14 to start a message. Thereby, the transceiver section 14 processes a call in and starts message processing.

[0027] If a user finishes a message, operates the input section 28 and directs termination of message processing, the main control section 30 will set to "Start Time" the elapsed time "SaveTime" saved at step S7 in step S9. It can come, simultaneously the main control section 30 sets to "the playback music ID" the "Save music ID" saved at step S7.

[0028] Then, in step S10, the main control section 30 reads music data for the address corresponding to the saved elapsed time according to read-out and its read address with reference to the playback data index table stored in the memory card 22, and resumes musical playback. The music which specifically interrupted playback according to the "playback music ID" set by step S9 is specified, and the playback data index table corresponding to the music data is specified further. And according to the "start Time" set by step S9, the address of music data is specified from a playback data index table, and read-out of music data is resumed from the address of a memory card 22. Thereby, the music playback section 16 starts musical playback from the part which interrupted playback.

[0029] according to the gestalt of this operation as mentioned above -- a sound -- the time of a call in occurring during easy playback -- a sound -- easy playback -- being interrupted -- a message -- starting -- the time of termination of a message -- a sound -- if a message is completed even if it talks over the telephone by a call in being in the midst it is being heard that music is, it can begin to be able to hear it, since it is constituted so that easy playback may resume from that part that interrupted from the part which was listening to that music at the time of a call in Consequently, in order to listen to music to the middle, in case a user does not have to do a rapid traverse etc. and listens to music with a cellular phone, he is very convenient.

[0030] When there is reception of e-mail, musical playback is interrupted and you may make it start download of e-mail, although musical playback is interrupted for the gestalt of the above-mentioned implementation and he is trying to start a message with it, when a call in occurs. Moreover, although external storage like a memory card 22 is used in order to memorize music data and a playback data index table, it may replace with this and an internal memory may be used. Furthermore, although the software timer is used, as it replaces with this and is shown in drawing 1, the hard timer circuit 34 may be used.

[0031] It should be thought that the gestalt of the operation indicated this time is [ no ] instantiation at points, and restrictive. The range of this invention is shown by the above-mentioned not explanation but claim, and it is meant that all modification in a claim, equal semantics, and within the limits is included.

---

[Translation done.]

**\* NOTICES \***

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

---

**DESCRIPTION OF DRAWINGS**

---

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the whole portable telephone configuration by the gestalt of implementation of this invention.

[Drawing 2] It is drawing showing the music data in the memory card shown in drawing 1 , and the structure of a playback data index table.

[Drawing 3] It is drawing showing the playback initiation menu displayed on the display of the portable telephone shown in drawing 1 .

[Drawing 4] It is the flow chart which shows actuation of the portable telephone shown in drawing 1 .

[Description of Notations]

10 A portable telephone, 14 The transceiver section, 16 The music playback section, 22 A memory card, 24 An interface, 30 Main control section.

---

[Translation done.]

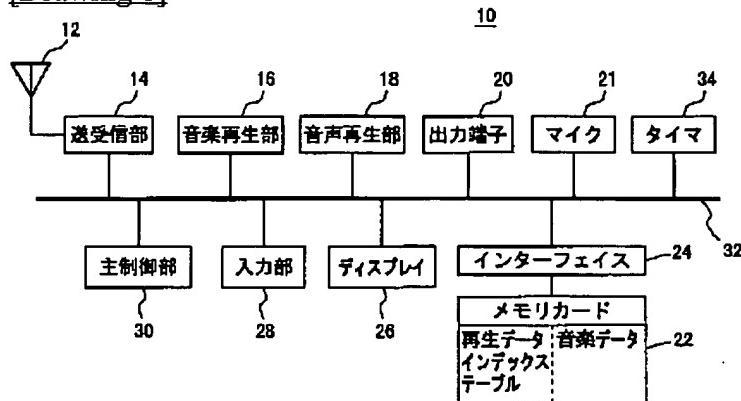
## \* NOTICES \*

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

## DRAWINGS

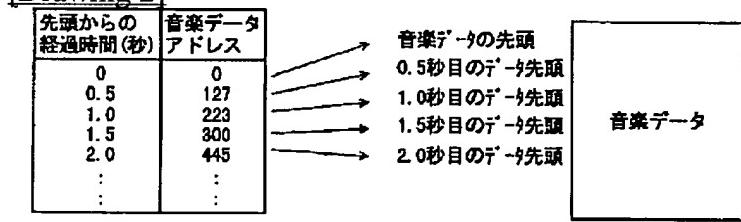
## [Drawing 1]



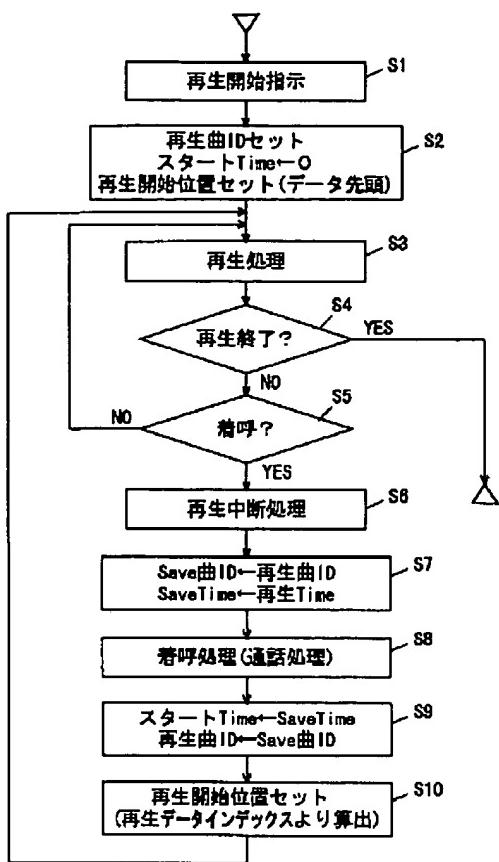
## [Drawing 3]

No	曲名	時間
1	山の歌	5:26
	リバーソング	3:08
3	海の歌	4:21

## [Drawing 2]



## [Drawing 4]



[Translation done.]